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HANDBOOK  
FOR  
PENNSYLVANIA TRAIN EXHIBIT  
FOOD CONSERVATION CAR

by

John Higson Cover

Division of Exhibits, U. S. Food Administration.

Auspices of Committee of Public Safety  
of Pennsylvania.

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JAN 18 1918

## I OUR ALLIES

Only in a war of the whole world could an army operate with its food base three thousand miles away. This phenomenon occurred when the United States joined forces with the Allies. The armies struggling in Belgium, France, Italy and the Balkans are dependent upon the wheat of our Middle West, meat from the Western plains, sugar from the West Indies, the valley of the Mississippi and the far West, the dairy products of New York and the Central West, to carry them step by step to victory.

On the other hand, the Central Powers have gained vast food-growing regions in France, Russia and Roumania which they are cultivating intensively in an endeavor to replenish their dwindling supplies.

This is the phase of the "Food War" dealt with in the first section of the train exhibit. It is summed up in the statement, "Our Enemies are getting food from conquered lands. Our Friends must depend largely upon us." The "Friends" it must be remembered, include the neutrals, who, isolated from the rest of the world, are completely dependent for imports upon the mercy of the belligerents. Nor must the military alone be fed. Millions of workers in the field and factory and the women and children at home must

## APPENDIX I

THE following is a list of the names of the persons who have been appointed to the various offices of the County of New York, since the last session of the Legislature.

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be cared for.

A map occupying the counter space of the first exhibit shows the present battle line stretching across France and Belgium, where every foot of ground is the scene of a desperate struggle. This is "Where the Battle is Fought". Cargo vessels are plying across the Atlantic carrying to the Allies the food which is to give them strength and vigor, or returning again at full speed to the United States "Where the supplies come from".

Flags of all the nations now our Allies lend color to the display. Under these flags are fighting and toiling in our defense - in the trenches, the factories, the fields and the homes - the men, women and children who are looking to us for food. -

doi:10.1017/S002229240000209



## I OUR ALLIES

General References

Home Card - U. S. Food Administration

Ten Lessons on Food Conservation - U. S. Food Administration

Bulletin No. 6 - U. S. Food Administration

THE STATE

OF NEW YORK

IN SENATE  
JANUARY 1, 1901  
REPORT OF THE  
COMMISSIONERS OF THE LAND OFFICE  
IN RESPONSE TO A RESOLUTION  
PASSED BY THE SENATE  
MAY 1, 1899

ALBANY: PUBLISHED BY THE STATE OF NEW YORK, 1901.

## I OUR ALLIES

## Statistics:

"Why, then, if food exhaustion is so universal, may we not rely on the speedy collapse of Germany's resistance? The answer is that before the war Germany and her allies were almost four-fifths self-supporting, whereas England was only one-fifth, France, one-half, and Italy, at an optimistic estimate, perhaps two-thirds. Germany, moreover, was a nation given to over-eating. The reduction of her rations was at first a benefit rather than a detriment to her population. Although in the last two years she has suffered severely her problem from the beginning has been only to increase her production by approximately 25 per cent. In spite of bad harvest she seems to have been able at least to meet the emergency, and if reports do not falsify she can do so indefinitely. She has possessed herself of what used to be the western fringe of Russia. Her latest conquest of Roumania has given her possession of the plains around the lower Danube, perhaps the most fertile soil in the world. Further, Germany has a tremendous and intricate food organization and no one within her borders dares to waste a crumb. Considering all these facts it would be the height of folly for America to assume anything less than Germany's power to endure.

The position of our allies in western Europe is essentially

THE HISTORY OF THE

REIGN OF

CHARLES THE FIRST

OF GREAT BRITAIN

BY JOHN BURNET

OF THE SOCIETY OF THE APOSTLES

IN TWO VOLUMES

LONDON

Printed by J. Sturges, at the Angel in St. Dunstons Church-yard, 1724

THE HISTORY OF THE REIGN OF CHARLES THE FIRST, OF GREAT BRITAIN, BY JOHN BURNET, OF THE SOCIETY OF THE APOSTLES, IN TWO VOLUMES. LONDON, Printed by J. Sturges, at the Angel in St. Dunstons Church-yard, 1724.

different. Dependent, even in peace times, on importations from the outside they drew their foodstuffs from almost every other country in the world. They can not now get supplies from central Europe - Germany, Austria-Hungary, Bulgaria, and Turkey - with which they are at war. . . . . India and Australia, too, can send but a part of their surplus to England or France because of the shortage of tonnage caused by the depredations of the submarines. . . . . Nor can help be looked for from the great food-producing nations of South America, for they also have shared in the general crop depression, and it is doubtful if they will have enough even for themselves."

(Ten Lessons on Food Conservation)

1901 MAY 10 AM 10:00

## II SMALL SAVINGS

In the conservation of food there is an opportunity for every individual to play his part in the war. One is not asked to reduce his food requirements, but to use the foods which are plentiful and to avoid all waste. Mr. Hoover has expressed it aptly in the sentence, "Eat plenty - but wisely and without waste".

This idea has been developed in a poster creation, "Eat of the Plentiful", by De Marr of the Philadelphia Record and is reproduced in the car exhibit. Uncle Sam is seated at the table in the national restaurant waiting to be served. Mr. Hoover, chief cook, has just crossed out on the wall sign the scarcer foods, meat and wheat, leaving Uncle Sam corn, potatoes, fish and fruit from which to select.

Waste is the most destructive enemy a nation must combat. With natural and human resources developed to their utmost, every waste of energy in any form is an irretrievable loss. The Government can regulate exports and encourage increased production, but it cannot step into the home or restaurant and direct the utilization of each item of left-overs. This service is the task of every individual who handles or consumes food.

In war times, in particular, Mr. Garbage Can must give way to the Salad Bowl, the Baking Dish and the Soup Kettle,

It was about 10:00 a.m. on Monday, May 19, 1964, that the first of the two men was seen by the author. The man was seen walking along the beach near the entrance to the lagoon. He was wearing a light-colored shirt and dark trousers. He was carrying a bag and appeared to be looking for something. The author saw him from a distance of about 100 yards. He was walking away from the author. The author did not see him again until the next day.



even though he starve. A picture in the Exhibit shows the interior of an icebox preserving several dishes of leftovers waiting to be used in some form which the housekeeper is to decide.

She is certain to give them to the salad bowl, the baking dish or the soup kettle for they are waiting expectantly and the garbage can is saying, "I used to get all leftovers; now I get nothing to feed my flies with." This cartoon was sketched by Fred Morgan of the Philadelphia Inquirer.

An individual saving may in itself seem insignificant. What is the value of saving a tiny one-third ounce of fat? The counter display in this section will tell you. If every one in Pennsylvania saves 1 oz. of sugar, 1 oz. of meat, 2 oz. of wheat flour and  $1/3$  oz. of fat daily, then in one week enough food will have been saved to supply the Pennsylvania Draft Army of 60,868 men as follows:

Sugar for 7 months  
Meat for 2 months  
Flour for 5 months

and a large quantity of ammunition containing glycerine manufactured from the fat. This story is depicted with miniature warehouse, army supply wagons and an encampment representing the home of the Pennsylvania draft quota.



## II SMALL SAVINGS

### General References

Home Card - U. S. Food Administration

Bulletin No. 6 - U. S. Food Administration

Ten Lessons on Food Conservation - U. S. Food Administration



## II SMALL SAVINGS

Statistics

"Every group can substitute, and even the great majority of thrifty people can save a little - and the more luxurious elements of the population can, by reduction to simple living, save much. The final result of substituting other products and saving 1 pound of wheat flour, 2 ounces of fats, 7 ounces of sugar and 7 ounces of meat weekly by each person will, when we have multiplied this by 100,000,000, have increased our exports to the amounts absolutely required by our allies."

(Bulletin No. 6 - U. S. Food Administration)

Food for 1,000 men for 30 days:

|             |                  |
|-------------|------------------|
| Wheat flour | -----24,270 lbs. |
| Meat        | -----27,548 "    |
| Sugar       | ----- 8,390 "    |

(Manual of Pay Officers Afloat - published  
by Paymaster General U. S. N.)

100 parts of fat make 9 parts of glycerine.

(Division of Statistics - U. S. Food Administration)

Pennsylvania Draft Quota - 60,859 men

Population of Pennsylvania - 8,591,021,



## III WHEAT

Much emphasis has been placed on the World's shortage of wheat and the necessity of our saving as much as possible for export to the Allies. "Why save wheat?" is the first natural question of the public; how to save it is the second.

There is a world shortage of wheat. France, England and Italy have experienced a crop reduction; Russia's supply cannot be transported to Western Europe; South America reports a shortage and the Australian crop is practically cut off because of the long journey and the reduced shipping accommodations. This situation requires that the United States make a supreme effort to save wheat for the Allies for they must have wheat to add to other grains in making their war bread.

But what is the value of the individual saving of a pound a week? This is the Exhibit answer: "If each person saves weekly one pound of wheat flour, That means 150,000,000 more bushels of wheat for the Allies to mix in their bread."

If it is so essential for each of us to render this service to our friends abroad, how are we to save our pound of wheat flour each week? The exhibit displays "Eight Easy Ways." If there are crumbs or crusts left over, chop them up for a tasty dish. But there should be no left-overs if the conservation plan is carried out. Put the loaf of bread on the table and cut each slice as needed. To stack the bread plate results in stale slices or in actual waste when





hungry Tommie forgets that his eyes are usually bigger than his stomach. If bread is ordered 24 hours in advance, the baker or grocer will not have to keep on reserve more than is needed and whole loaves of bread will be saved. These are general ways of providing against waste.

The use of other foods or other cereals will permit the wheat to go directly from the granary to the army or navy storehouse.

The following suggestions are made vivid by displays of actual and attractively made artificial foods.

For breakfast, oatmeal and cornflakes are attractive, palatable dishes to use instead of wheat, while corn muffins or corn bread are welcome with sirup or with more substantial dishes.

"Emergency Bread", composed of wheat flour mixed with another meal or flour should be used in lieu of white bread. It saves from one-fifth to one-third of the amount of wheat flour usually employed.

With a large meal, no bread is necessary. Potatoes, corn and other vegetables give the same food equivalents and are far more plentiful than the wheat. For the dessert rice pudding, fruit and other well-known preparations are pleasing exchanges for wheat and are more beneficial than cake and pastry from the health standpoint.

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September 21, 1917.

### III WHFAT

#### General References

Home Card - U. S. Food Administration

Ten Lessons on Food Conservation - U. S. Food Administration

Bulletin No. 8 - U. S. Food Administration

"Cereal Breakfast Foods" - Farmer's Bulletin No. 249.  
Department of Agriculture

"How to Select Foods" - II Cereal Foods - Farmer's Bulletin  
No. 817, Department of Agriculture

"Bread and Bread Making in the Home" - Farmer's Bulletin  
No. 807, Department of Agriculture

"Food Value of Corn and Corn products" - Farmer's Bulletin  
No. 298, Department of Agriculture



## III WHEAT

Statistics

The Wheat Supply of the World.

"South American reports indicate abnormal shortage".

"Russian supply can not be brought to western Europe".

"Australian supply can not be shipped because of long journey and reduced shipping facilities".

"United States winter-wheat crop seriously damaged".

"Canadian crop dependent upon summer rains".

(Ten Lessons on Food Conservation - U. S.  
Food Administration)

Many recipes are given on page 20 of "Ten Lessons on Food Conservation" - U. S. Food Administration.

"Have at least one wheatless meal a day. Use corn, oat, rye, barley, or mixed cereal rolls, muffins, and breads in place of white bread certainly for one meal and, if possible, for two. Eat less cake and pastry.

As to white bread, if you buy from a baker, order it a day in advance; then he will not bake beyond his needs. Cut the loaf on the table and only as required. Use stale bread for toast and cooking."

(Home Card - U. S. Food Administration)



"Emergency Breads" combine to 20 to 35 per cent of other cereals with wheat flour".

(Ten Lessons on Food Conservation - U. S. Food Administration)

See recipes for "Emergency Breads" - (Ten Lessons on Food Conservation - U. S. Food Administration)

"We as a people are depending largely upon cereals for our energy supply. It is easily possible to use less cereal and make larger demands for energy on starchy vegetables. Our average consumption of potatoes per capita is about 9 ounces per day. If we could be induced to take an additional daily average of only 4 ounces of potatoes - that is, about one good-sized potato - demand for bread would be reduced by about that amount per individual. Other heat-giving foods, such as sweet potatoes, corn, peas, and beans may be used to reduce the demand upon cereals. On such a basis we may advocate decreased bread consumption."

(Ten Lessons on Food Conservation - U. S. Food Administration)





## IV MEAT

Added to the enormous consumption of meat in Europe is the submarine menace which has diminished the supply of cargo vessels to such an extent that the usual extensive meat trade between Europe and Australia and South America has been almost abated in order to concentrate on the trade with the United States for it is several times the distance to these sources and would require three times the number of ships used in the American trade. This endangers our own supply of meat, for if the heavy domestic consumption is to continue while the fighting men are being provided for, the drain will soon seriously affect our stock. We must conserve now, for after the war we shall be called upon to replenish the stock of the whole earth.

It is the object of this exhibit, therefore, to suggest foods which contain the same nutritive values as meat and are plentiful, in addition. Vegetarians will have no difficulty in conforming to the new order. For others, the exhibit offers as meat equivalents a display of such foods as baked or boiled fish, pea soup, baked beans, cottage cheese and baked eggs. The amount of each food displayed is an equivalent of a four ounce piece of meat shown in contrast.

But it will not be necessary to relinquish the meat habit altogether. Emphasis should be placed on the elimina-



The first part of the report deals with the general situation of the country and the progress of the work during the year. It is followed by a detailed account of the various projects and the results achieved. The report concludes with a summary of the work done and a list of the names of the persons who have taken part in it.

The second part of the report deals with the financial situation of the country and the progress of the work during the year. It is followed by a detailed account of the various projects and the results achieved. The report concludes with a summary of the work done and a list of the names of the persons who have taken part in it.

The third part of the report deals with the administrative situation of the country and the progress of the work during the year. It is followed by a detailed account of the various projects and the results achieved. The report concludes with a summary of the work done and a list of the names of the persons who have taken part in it.

The fourth part of the report deals with the educational situation of the country and the progress of the work during the year. It is followed by a detailed account of the various projects and the results achieved. The report concludes with a summary of the work done and a list of the names of the persons who have taken part in it.

The fifth part of the report deals with the health situation of the country and the progress of the work during the year. It is followed by a detailed account of the various projects and the results achieved. The report concludes with a summary of the work done and a list of the names of the persons who have taken part in it.

The sixth part of the report deals with the social situation of the country and the progress of the work during the year. It is followed by a detailed account of the various projects and the results achieved. The report concludes with a summary of the work done and a list of the names of the persons who have taken part in it.

The seventh part of the report deals with the economic situation of the country and the progress of the work during the year. It is followed by a detailed account of the various projects and the results achieved. The report concludes with a summary of the work done and a list of the names of the persons who have taken part in it.

The eighth part of the report deals with the political situation of the country and the progress of the work during the year. It is followed by a detailed account of the various projects and the results achieved. The report concludes with a summary of the work done and a list of the names of the persons who have taken part in it.

The ninth part of the report deals with the cultural situation of the country and the progress of the work during the year. It is followed by a detailed account of the various projects and the results achieved. The report concludes with a summary of the work done and a list of the names of the persons who have taken part in it.

The tenth part of the report deals with the environmental situation of the country and the progress of the work during the year. It is followed by a detailed account of the various projects and the results achieved. The report concludes with a summary of the work done and a list of the names of the persons who have taken part in it.

tion so far as possible of beef, mutton and pork. Fish is, pound for pound, just as valuable a food as meat. Moreover, as the exhibit points out, "our fish supply feeds itself." We are not required to raise acres of grain and give hours of care to the fish. And when we show that we are ready to buy them, the exhibit, says, the "fishermen will harvest the crop."

Most housewives know only a dozen fish, the standards-white fish, mackerel, sardine, salmon, cod, trout, halibut and a few others. It is natural for them to refuse to purchase other varieties the names of which are unfamiliar. Consequently, there are many kinds which are just as valuable, much cheaper and which can be prepared just as palatably as the more famous species, but which are thrown back into the water by the fishermen or discarded in the factories because they will not sell.

Seven fish obtainable in Pennsylvania if the consumer will create the demand, are shown in life size and color, making an appetizing appeal to the housewife. They are the sea bass, the croaker, porgie, weakfish, shark and sea robin. A placard attached to this display asks, "Why not have two fish days a week in your town?" Your dealers can get these choice fish. Ask for them." If Friday is a fresh-fish day, why not make Tuesday a salt-fish day?

A window transparency gives a picturesque likeness . .

The first part of the paper is devoted to a general discussion of the problem of the existence of solutions of the system of equations (1) for arbitrary values of the parameters  $\alpha$  and  $\beta$ . It is shown that the system has solutions for all values of the parameters  $\alpha$  and  $\beta$  if the function  $f(x)$  is continuous and has a bounded derivative. The second part of the paper is devoted to a detailed study of the properties of the solutions of the system (1) for arbitrary values of the parameters  $\alpha$  and  $\beta$ . It is shown that the solutions of the system (1) are unique and depend continuously on the parameters  $\alpha$  and  $\beta$ . The third part of the paper is devoted to a study of the asymptotic properties of the solutions of the system (1) for large values of the parameters  $\alpha$  and  $\beta$ . It is shown that the solutions of the system (1) approach zero as the parameters  $\alpha$  and  $\beta$  approach infinity.

The fourth part of the paper is devoted to a study of the properties of the solutions of the system (1) for small values of the parameters  $\alpha$  and  $\beta$ . It is shown that the solutions of the system (1) are unique and depend continuously on the parameters  $\alpha$  and  $\beta$ . The fifth part of the paper is devoted to a study of the asymptotic properties of the solutions of the system (1) for large values of the parameters  $\alpha$  and  $\beta$ . It is shown that the solutions of the system (1) approach zero as the parameters  $\alpha$  and  $\beta$  approach infinity. The sixth part of the paper is devoted to a study of the properties of the solutions of the system (1) for arbitrary values of the parameters  $\alpha$  and  $\beta$ . It is shown that the solutions of the system (1) are unique and depend continuously on the parameters  $\alpha$  and  $\beta$ . The seventh part of the paper is devoted to a study of the asymptotic properties of the solutions of the system (1) for large values of the parameters  $\alpha$  and  $\beta$ . It is shown that the solutions of the system (1) approach zero as the parameters  $\alpha$  and  $\beta$  approach infinity.

The eighth part of the paper is devoted to a study of the properties of the solutions of the system (1) for arbitrary values of the parameters  $\alpha$  and  $\beta$ . It is shown that the solutions of the system (1) are unique and depend continuously on the parameters  $\alpha$  and  $\beta$ . The ninth part of the paper is devoted to a study of the asymptotic properties of the solutions of the system (1) for large values of the parameters  $\alpha$  and  $\beta$ . It is shown that the solutions of the system (1) approach zero as the parameters  $\alpha$  and  $\beta$  approach infinity. The tenth part of the paper is devoted to a study of the properties of the solutions of the system (1) for arbitrary values of the parameters  $\alpha$  and  $\beta$ . It is shown that the solutions of the system (1) are unique and depend continuously on the parameters  $\alpha$  and  $\beta$ . The eleventh part of the paper is devoted to a study of the asymptotic properties of the solutions of the system (1) for large values of the parameters  $\alpha$  and  $\beta$ . It is shown that the solutions of the system (1) approach zero as the parameters  $\alpha$  and  $\beta$  approach infinity.

of fish of various colors swimming in water. The United States Bureau of Fisheries has loaned the Pennsylvania authorities a display of preserved fish in jars.



IV MEAT

General References

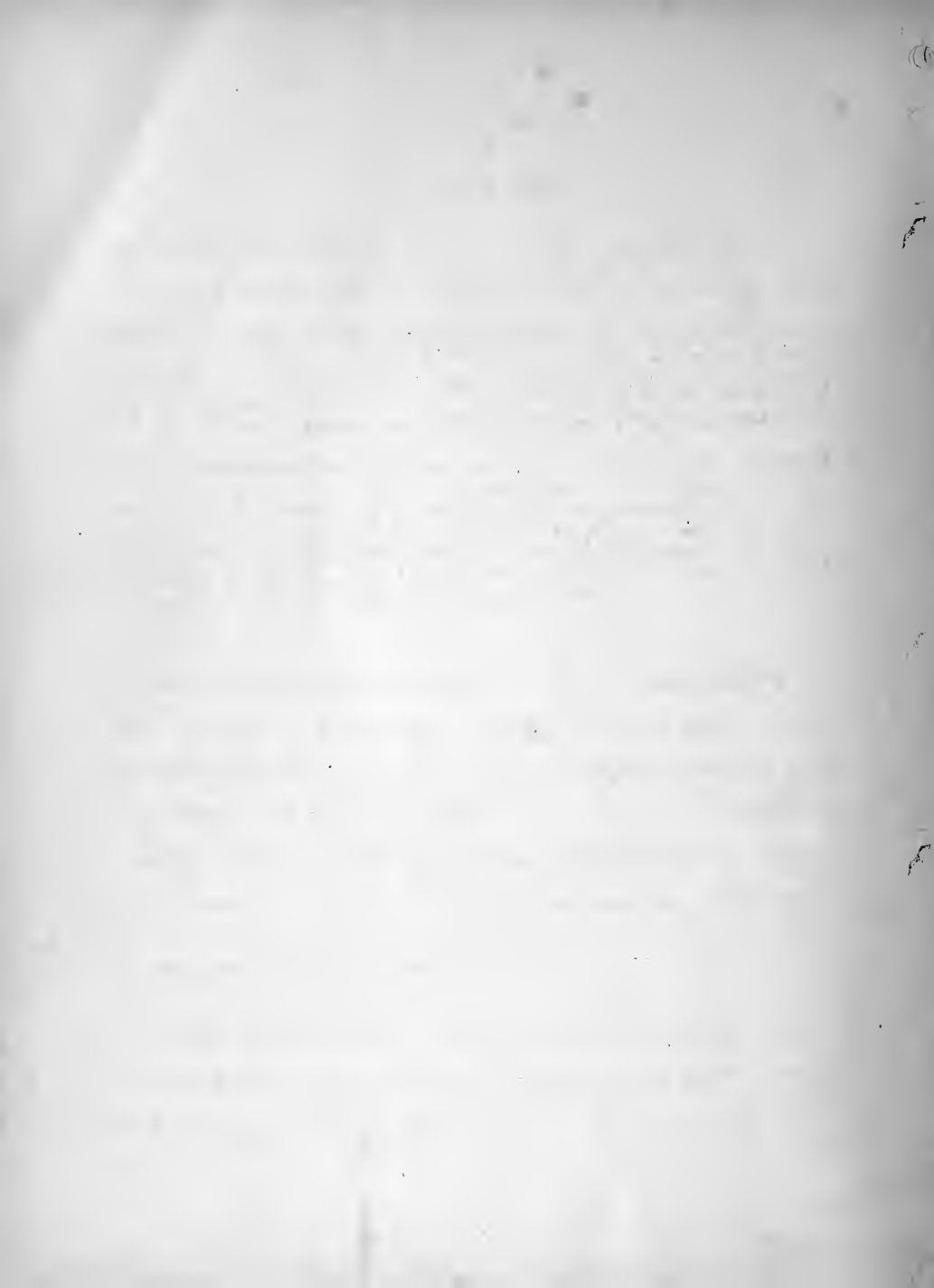
Home Card - U. S. Food Administration

"Eat More Fish" - Pamphlet of Division F, Department of  
Commerce, U. S. Bureau of Fisheries.

"Why and How to Use Salt and Smoked Fish" - Economics  
Circular No. 29 - Bureau of Fisheries

Bulletin No. 6 - U. S. Food Administration

"Ten Lessons on Food Conservation" - U. S. Food Administration





## IV MEAT

Statistics

"The immediate problem is to furnish increased meat supplies to the allies to maintain them during the war. An important factor contributing to the present situation lies in the disturbance to the world's trade by destruction of shipping resulting in throwing a larger burden on North America . . . . . Our producers will serve our national interest and the interest of humanity for years to come, if the best strains of your animals are preserved."

(Food Administration Bulletin No. 6)

"The waters of our coasts and lakes are enormously rich in fish and shellfish. Many varieties are now not used for human food, but are thrown away or used for fertilizer. . . . . Every fish eaten is that much gained in solving the present problem of living. The products of the land are conserved by eating those of the sea."

(Food Administration Bulletin No. 6)

"Fish meat contains as much body-building food as beefsteak. Fish is as readily digested as are other meats."

("Fat More Fish" - Division F, U. S.  
Bureau of Fisheries)

CHAPTER I

The first part of the book is devoted to a general survey of the history of the subject. It begins with a brief account of the early attempts to explain the phenomena of life, and then proceeds to a more detailed examination of the various theories which have been advanced from time to time. The author discusses the mechanical, vitalistic, and evolutionary views, and compares them with the results of modern scientific research. He also touches upon the philosophical aspects of the problem, and the influence of religion and metaphysics upon the development of the science of life.

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Schedule Showing the Average Chemical Composition of the Edible Portions of Fresh Beef, Fresh Veal, Lamb, Mutton, Pork and Fresh Poultry, as Against the Average Chemical Composition of the Edible Portions of 29 of the Staple Varieties of Fresh Salt-Water Fish.

|                                      | Protein<br>N. (amount of<br>nitrogen) x 6.25 | Fat   | Ash  |
|--------------------------------------|--|-------|------|
| Fresh Beef                           | 18.69  | 21.52 | .93  |
| Fresh Veal, Lamb,<br>Mutton and Pork | 18.32  | 12.12 | .98  |
| Fresh Poultry                        | 19.55  | 19.2  | .975 |
| Average for above                    | 18.85  | 20.61 | .961 |
| Fresh Fish                           | 18.77  | 4.12  | 1.26 |

(Mr. Fowler, Chief of Div. on Fish, U.S.  
Food Administration)

"Don't let Friday be the only Fish Day.

"Don't stand back on disagreeable names or ungainly appearances.

"Prejudice is an expensive luxury. A shark would not taste any better if called by another name. Carp is good eating and nutritious.

"Look out for new fish? They are coming."

(Eat More Fish - Division F., U. S.  
Bureau of Fisheries)

THESE RESULTS ARE IN ACCORD WITH THE  
 FINDINGS OF OTHER INVESTIGATORS  
 WHO HAVE STUDIED THE EFFECTS OF  
 VARIOUS FACTORS ON THE GROWTH  
 OF BACTERIAL CULTURES.

### DISCUSSION

THE RESULTS OF THE PRESENT STUDY  
 INDICATE THAT THE GROWTH OF  
 BACTERIAL CULTURES IS INFLUENCED  
 BY A NUMBER OF FACTORS, INCLUDING  
 TEMPERATURE, HUMIDITY, AND  
 THE PRESENCE OF NUTRIENTS.  
 THE DATA OBTAINED FROM THE  
 EXPERIMENTS CONDUCTED IN THIS  
 STUDY ARE IN GOOD AGREEMENT  
 WITH THE FINDINGS OF OTHER  
 RESEARCHERS IN THE FIELD.

### CONCLUSIONS

THE STUDY HAS DEMONSTRATED THAT  
 THE GROWTH OF BACTERIAL CULTURES  
 IS AFFECTED BY A VARIETY OF  
 ENVIRONMENTAL FACTORS. THE  
 RESULTS OF THE EXPERIMENTS  
 CONDUCTED IN THIS STUDY  
 SUPPORT THE HYPOTHESIS THAT  
 TEMPERATURE AND HUMIDITY  
 ARE MAJOR FACTORS INFLUENCING  
 BACTERIAL GROWTH. FURTHER  
 RESEARCH IS REQUIRED TO  
 ELUCIDATE THE MECHANISMS  
 INVOLVED IN THESE PROCESSES.

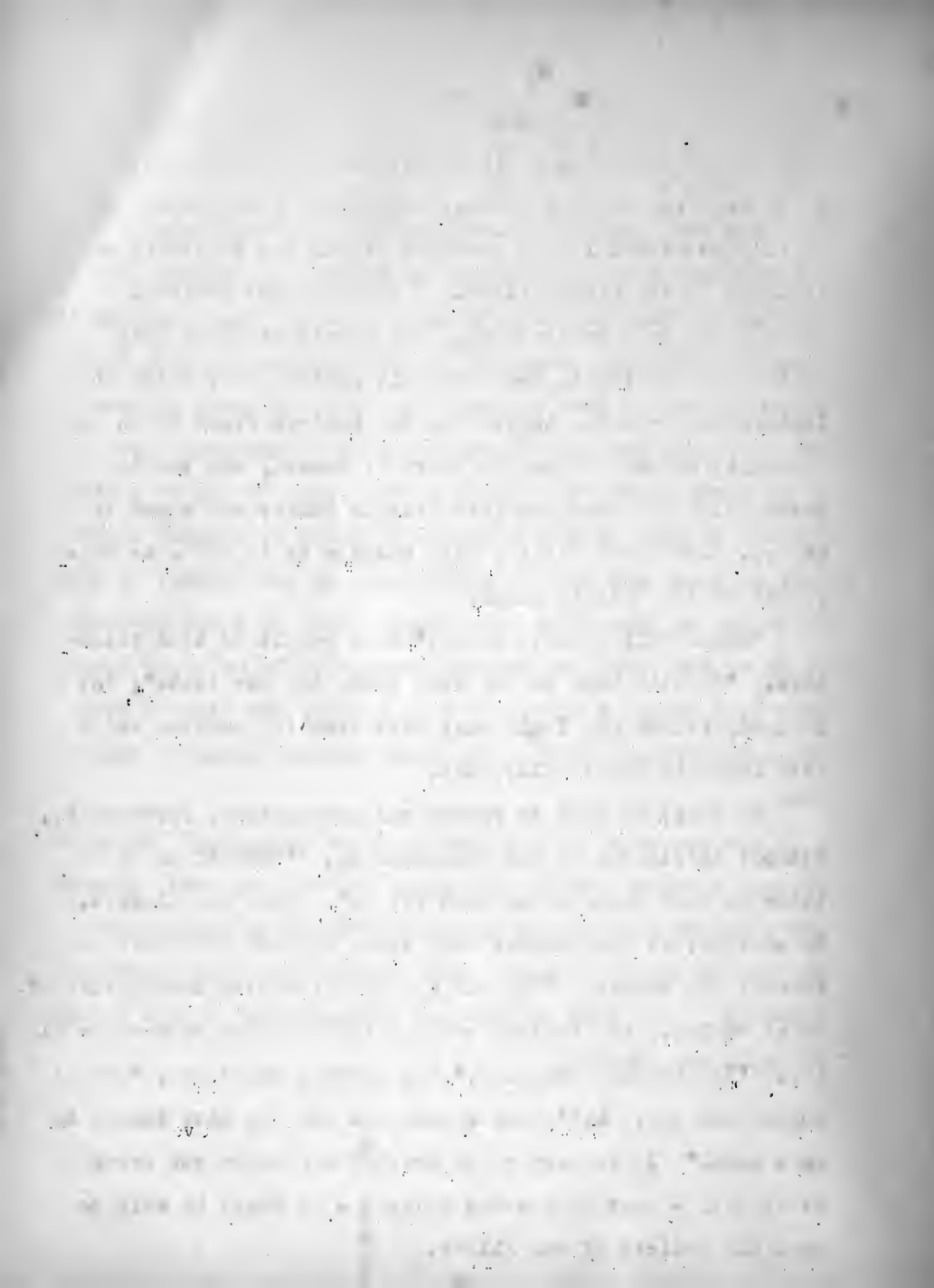
THE AUTHOR WOULD LIKE TO  
 EXPRESS HIS APPRECIATION  
 TO THE FOLLOWING INDIVIDUALS  
 WHO ASSISTED IN THE  
 CONDUCT OF THIS STUDY:

## Y SUGAR

Before the war the Allies obtained large quantities of sugar from the Central Powers. More than a fourth of the World's sugar supply was produced within the territory now enclosed by the battle lines. A transparency portrays these facts in a colored map. The slowly changing line of the Western Front, the difficult section over which the Italians are groping their way, the Eastern Front which is gradually pressing into the heart of Russia, and the line surrounding the long arm into Asiatic Turkey are shown in colors. Contained within, held hostage as it were, is one-fourth of the world's sugar.

"Sugar will be hard to get" as a result of this situation. "We will have to use less while the war lasts", for England, France and Italy must draw from the sources which were formerly bountifully ours.

We shall be able to reduce our consumption, fortunately, without infringing on our requirements. "Many of us eat twice as much sugar as is good for us", reads the placard. We consume, in fact nearly four times as much per capita as France. As compared with our annual per capita consumption of 85 or 90 lbs., the English consumption has been reduced to 21 lbs. "The average American," the exhibit continues, "uses 4 ounces per day. Let's use 3 ounces a day and have enough to go around." If we save on an average one ounce per person every day, - just four cubes apiece, - we shall be able to meet the deficit of the Allies.



Some will recoil in self-defense at the thought of reducing their three spoonfuls in the morning coffee and will insist that they must have it. Well, then, replies the Exhibit, "Here is a choice," and if you must use your share in coffee cut it down in some other way, and then it sets out before us real and imitation foods which make most of us plead guilty to a false sweet-tooth. A cup of coffee reminds us that we have carelessly tossed in several spoonfuls of sugar and left it undissolved on the bottom. A dish of cereal is snow white with sugar. Here is a box of candy which we are likely to consume thoughtlessly at great speed. Here is a piece of cake, sweet in itself, but stacked with icing as well and there a chocolate sundae, almost a sugar mine.

But are we to be deprived of these pleasures? Not a bit of it! After we choose the manner in which we shall consume our 5 ounces the exhibit offers the following suggestions to keep us happy: - honey, maple sirup, jam, corn sirup and molasses. And here is the cake without frosting and a plate of delicious cookies.

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General References

Home Card - U. S. Food Administration

Bulletin No. 6 - U. S. Food Administration

Ten Lessons on Food Conservation - U. S. Food Administra-  
tion

1944

# General Information

How Good - 9.5% (Total 100%)

Willingness to 1 - 10 (10 = 100%)

The number of days between 1 - 10 (10 = 100%)

1944

## V SUGAR

Statistics

Before the war, "France, Italy, Russia and Belgium were self-supporting. . . . . The supply of the United Kingdom came to the amount of about 70 per cent from countries from which it is now cut off by war. . . . . if all the enemies of Germany are to be supplied, there must be economy in consumption everywhere. The normal American consumption is about 90 pounds per person per annum, and is just double the French consumption".

(Bulletin #6 - U. S. Food Administration)

"The use of sugar (exclusive of that naturally present in fruits, vegetables, etc.) in the United States has been on an average practically 4 ounces per day per capita. While not all of us use 4 ounces of sugar daily, many of us will be found to use that amount and even more if we include all forms of sweets, i.e., not only the sugar eaten on fruits and cereals, or in tea, coffee, etc., but also that used in general cooking, and in cakes, desserts, preserves, candies, "soft drinks," etc. The fact that there is now a limited supply to meet all demands for sugar will require us to reduce our consumption. From present indications it would seem that if we could reduce it to an average of 3 ounces daily we would meet the situation. The experience in Europe

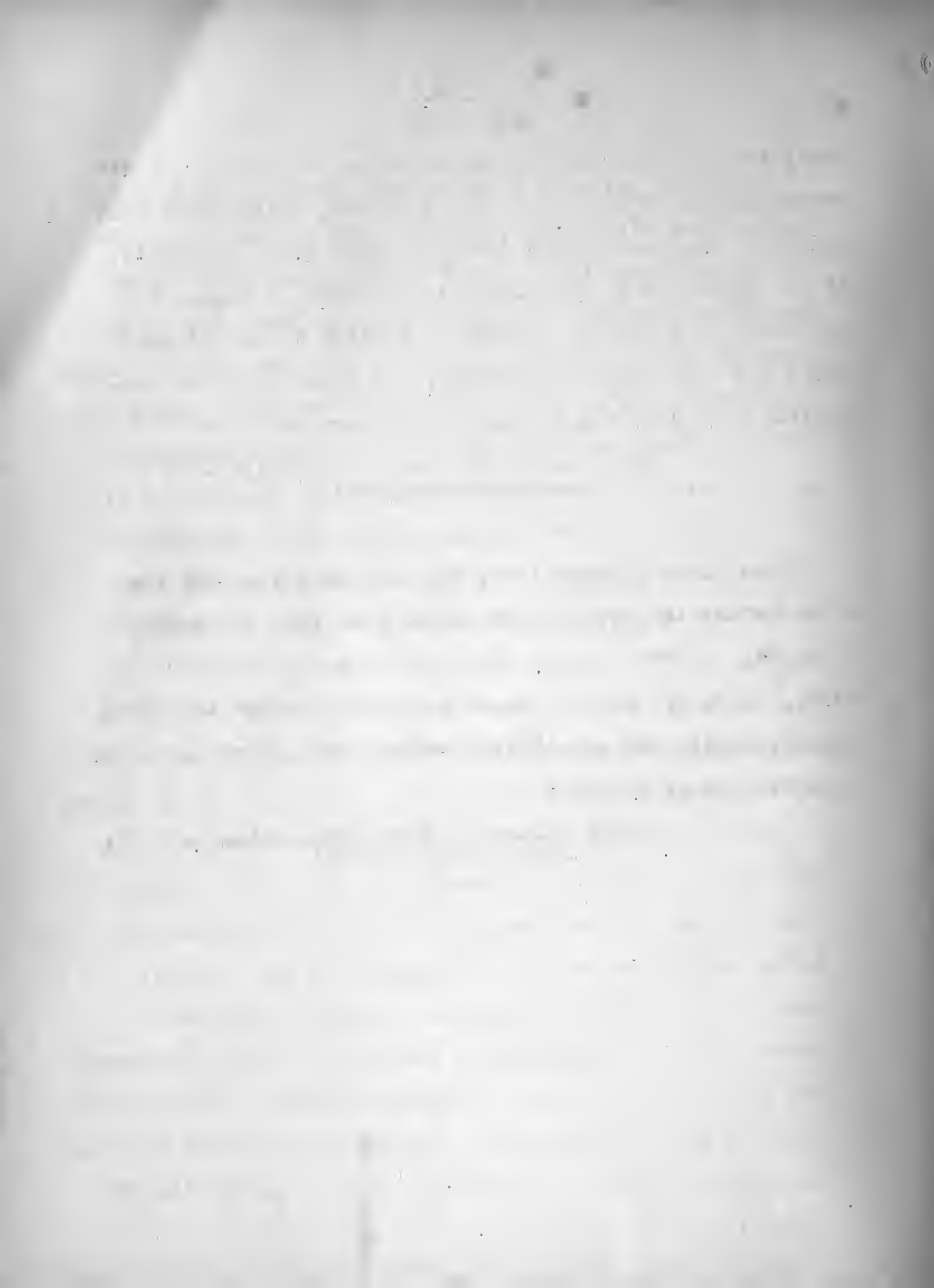


seems to indicate that the use of sugar is largely for the psychological effect of the sweet flavor, which helps make palatable the less highly flavored foods such as cereals, It has been used in the armies in the form of jams. Ian Hay tells some amusing stories of English "Tommies" who would face any danger cheerfully, but broke into open rebellion when deprived of their strawberry marmalade."

(Ten Lessons on Food Conservation - U. S.  
Food Administration)

"For adults, convenience and economy may safely decide whether the sweet flavor shall come from ordinary white sugar, brown sugar, molasses, maple sugar, corn sirup, honey or from the sugar naturally present in fruits and vegetables and especially abundant when these have been concentrated by drying."

(Ten Lessons on Food Conservation - U. S.  
Food Administration)



## VI MILK

Milk is not only a refreshing drink; it is also one of our most vital foods, particularly for children. Unfortunately, the term, "food" seems to be linked in the common imagination with the definition "something to be chewed". It is only necessary to point out that in energy value one quart of milk is equivalent to eleven ounces of sirloin steak and in building power to seven ounces of sirloin steak to realize how unfortunate this belief is.

This is the most important point which the exhibit endeavors to impress: "If you cut down your war time order, don't cut down the children's milk; cut somewhere else".

A family order list, which has just been revised in accordance with war time regulations, occupies the center of the display. It shows that the milk order of two quarts is being continued, that the half pint of cream has been crossed out, that the meat order has been reduced from three to two pounds, that a quart of skim milk has been added and the amount of cheese increased from one-half pound to a pound. The skim milk and added portion of cheese will take the place of the meat no longer purchased and will reduce the cost of living. On the left and right sides of the order list are displayed respectively the foods constituting the "Before War Time Order" and the "War Time Order".

1870

1871

1872

1873

1874

1875

1876

1877

1878



## VI MILK

The quantity of meat has been reduced because of its scarcity and the facility with which other foods take its place. Cheese, vegetables and fruits are retained because they are plentiful and because the first two readily take the place of meat in the diet. One pound of cottage cheese, for instance, has as much strengthening power as a pound and a quarter of beefsteak and as much energy value as half a pound of beefsteak. Cottage cheese, moreover, is made from skim milk.

Cream takes the fatty substance from milk and leaves the skim milk rich in all other nourishing materials. It would be cheaper and of nutritive value to buy skim milk for cottage cheese, or for use in baking muffins and bread or in cooking cereals, making soups, puddings, sauces or cocoa.

A window transparency pictures an attractive modern dairy and herd of cows, depicting the source of one of our most important food industries, an industry which the United States Government is taking every step to develop and maintain through the period of the war when it becomes increasingly difficult to meet the high price of food and to resist the temptation to sell the cows for meat.

With this birdseye view of the milk situation it becomes evident that every drop of milk must be carefully used so that there will be no waste. A drop seems insignificant and so does half a cup, but the exhibit points out that if everyone in Pennsylvania wasted just half a cup, the

1. The first part of the document is a letter from the President of the United States to the Congress, dated January 1, 1861. It is a very important document, as it sets out the President's policy towards the South and the Union. The President states that he is committed to the Union and the Constitution, and that he will use all the power at his disposal to maintain the Union. He also states that he will not interfere with the rights of the States, but that he will not allow the States to secede from the Union.

total would equal the yearly supply of 500 cows.

10

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## VI MILK

### General References

- "Bulletin No. 6" - U. S. Food Administration
- "Ten Lessons on Food Conservation" - U. S. Food Administration
- "Home Card" - U. S. Food Administration
- "The Use of Milk as Food" - U. S. Department of Agriculture,  
Farmer's Bulletin No. 363
- "Milk As a Food" - U. S. Department of Agriculture, Bureau  
of Animal Industry, Dairy Division
- "Cheese and Its Economical Uses in the Diet" - U. S. Depart-  
ment of Agriculture, Farmer's Bulletin No. 487.
- "How to Use Skim Milk" - U. S. Department of Agriculture,  
Bureau of Animal Industry, Dairy Division
- "Skim Milk", Milk Plant Letter No. 40 - U. S. Department of  
Agriculture, Bureau of Animal Industry, Dairy Division.

1. The first part of the document is a list of names and addresses, which appears to be a directory or a list of contacts. The names are written in a cursive script, and the addresses are listed below them.

2. The second part of the document is a list of names and addresses, which appears to be a directory or a list of contacts. The names are written in a cursive script, and the addresses are listed below them.

3. The third part of the document is a list of names and addresses, which appears to be a directory or a list of contacts. The names are written in a cursive script, and the addresses are listed below them.

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10. The tenth part of the document is a list of names and addresses, which appears to be a directory or a list of contacts. The names are written in a cursive script, and the addresses are listed below them.

## VI MILK

Statistics

## Energy value of Milk

One quart is equivalent to

11 oz. sirloin steak  
 13 oz. round       "  
 8½ eggs  
 10.7 oz. fowl

("Milk as a Food")

## Building power of Milk

One quart is equivalent in protein to

7 oz. sirloin steak  
 6 oz. round       "  
 4.3 eggs  
 8.6 oz. fowl

("Milk As A Food")

"Milk and milk products are very important foodstuffs and have a peculiar dietary value, as is evidenced by the fact that milk is a complete food for the young animal. Experience shows that after the period of exclusive diet has passed it is still a very desirable food for young children as well as for the adult. The fact that whole milk, skim milk and cheese supply an abundance of protein is well recognized. It is equally well known that milk, butter and cheese are important sources of energy. A study of milk protein shows that in character it is particularly valuable for building and repairing body tissues."

("Ten Lessons")

"The children must have whole milk; therefore use less cream."

("Home Card")

1895

1895

1895

1895

1895

1895

1895



## VI MILK - Cottage Cheese

Statistics

Protein value compared with other foods:

1 lb. cottage cheese equals:

|      |      |                  |
|------|------|------------------|
| 1.27 | lbs. | sirloin steak    |
| 1.09 | "    | round steak      |
| 1.37 | "    | chuck rib roast  |
| 1.52 | "    | fowl             |
| 1.46 | "    | fresh ham        |
| 1.44 | "    | smoked ham       |
| 1.53 | "    | loin pork chop   |
| 1.31 | "    | hind leg of lamb |
| 1.37 | "    | breast of veal   |

("Cottage Cheese - An Inexpensive meat substitute")

Energy value compared with other foods:

1 lb. cottage cheese equals:

|        |     |                  |
|--------|-----|------------------|
| 8 1/3  | oz. | sirloin steak    |
| 11 1/4 | oz. | round steak      |
| 11 1/4 | oz. | chuck rib roast  |
| 10 3/4 | oz. | fowl             |
| 5 1/2  | oz. | fresh ham        |
| 5      | oz. | smoked ham       |
| 6      | oz. | loin pork chop   |
| 7 1/2  | oz. | hind leg of lamb |
| 12 3/4 | oz. | breast of veal   |

("Cottage Cheese - An Inexpensive Meat Substitute")

and the other side of the mountain

the mountain was very high

and the other side of the mountain

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## VI MILK - Cream

Statistics

Cream takes the fatty substance

Energy value in 1 quart of

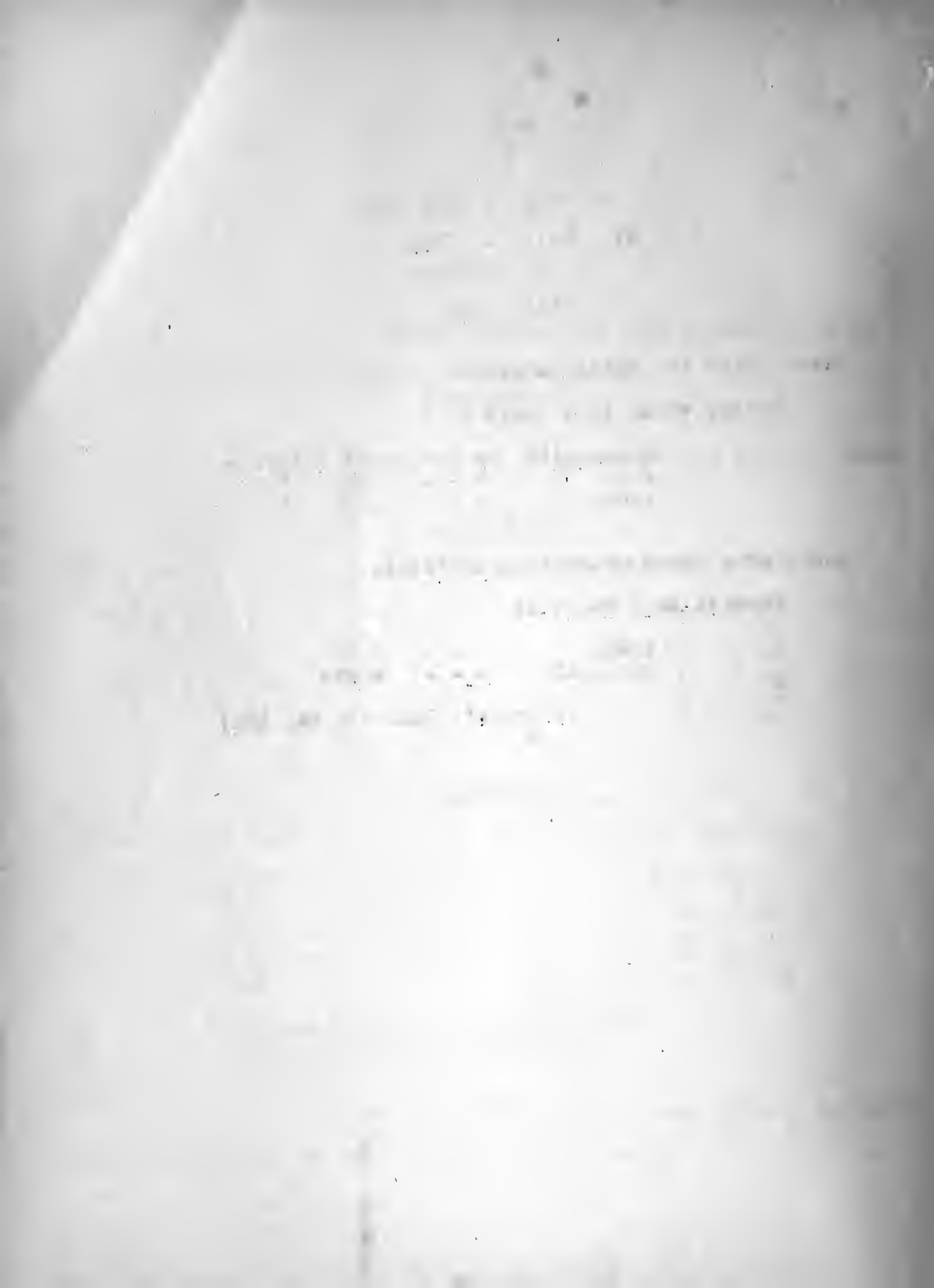
|            |       |              |
|------------|-------|--------------|
| whole milk | - - - | 667 calories |
| skim "     | - - - | 374 "        |
| cream      | - - - | 2510 "       |

And leaves other nourishing materials

Protein in 1 quart of

|           |       |       |
|-----------|-------|-------|
| cream     | - - - | 0.082 |
| skim milk | - - - | 0.078 |

(Farmer's Bulletin No. 365)



## VI MILK - Skim Milk

Statistics

1 gallon makes  $1\frac{1}{2}$  lbs. of cottage cheese

(Department of Agriculture, Dairy Division  
Statistics)

Value of Skim milk compared to whole milk

For Protein

| When 4% whole milk sells at | Skim milk is worth |
|-----------------------------|--------------------|
| 7¢ a quart                  | 7.2¢ a quart       |
| 8¢ " "                      | 8.2¢ " "           |
| 9¢ " "                      | 9.3¢ " "           |
| 10¢ " "                     | 10.3¢ " "          |
| 11¢ " "                     | 11.3¢ " "          |
| 12¢ " "                     | 12.4¢ " "          |

For Energy

| When 4% whole milk sells at | Skim milk is worth |
|-----------------------------|--------------------|
| 7¢ a quart                  | 3.7¢ a quart       |
| 8¢ " "                      | 4.2¢ " "           |
| 9¢ " "                      | 4.2¢ " "           |
| 10¢ " "                     | 5.2¢ " "           |
| 11¢ " "                     | 5.8¢ " "           |
| 12¢ " "                     | 6.3¢ " "           |

("Skim Milk" - Milk Plant Letter No. 40-  
Department of Agriculture)

Yield of average cow - 530 gallons yearly

(Statistical Bureau - U. S. Food Administration)



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